

- Fig. 4. *P. Sancti-Patricii*: *a*, right valve; *b*, dorsal aspect.
 Fig. 5. *Cythere Wrightiana*: *a*, left valve; *b*, ventral view.
 Fig. 6. *C. Bailyana*: *a*, right valve; *b*, dorsal view.
 Fig. 7. *C. Jukesiana*: *a*, right valve; *b*, ventral aspect.
 Fig. 8. *C. Harknessiana*: *a*, right valve; *b*, dorsal aspect.
 Fig. 9. *Bairdia Murchisoniana*: *a*, left valve; *b*, ventral view.
 Fig. 10. *B. Griffithiana*: *a*, left valve; *b*, ventral view.
 Fig. 11. *B. Salteriana*: *a*, right valve; *b*, ventral view.
 Fig. 12. *Cythere Aldensis*: right valve.

BIBLIOGRAPHICAL NOTICE.

On Subaërial Denudation, and on Cliffs and Escarpments of the Chalk and the Lower Tertiary Beds. By WILLIAM WHITAKER, B.A., F.G.S., &c. 8vo, pp. 27. Hertford, 1867.

“For some years,” writes Mr. Whitaker, in this reprint from the ‘Geological Magazine,’ “geologists have more or less agreed in the view that the present features of the earth, whether hill, valley, or plain (with some small exceptions, as volcanic outbursts), have been formed *directly* by denudation; though *indirectly* disturbances, whether faults, upheavals, or sinkings, have of course had their effect in determining the flow, so to speak, of the denuding agent.”

Of late much discussion has been held on the comparative effect of the two forces, disturbance and denudation, and on the relative extent to which sea-action on the one hand and atmospheric agencies on the other have worn away the earth’s surface and carved its rocks into their present form.

Although the action, simple or combined, of frost, avalanches, glaciers, icebergs, coast-ice, river-ice, rain, snow-water, springs, torrents, and rivers, has never been ignored by geologists since their science took a systematic form, yet doubtless they have been too much influenced in general by the popular notion that the sea has been up and over the land time after time, and effected the scoopings and carvings of hill and valley,—the quiet and slow action of air and rain (universal, indeed, but lost sight of by the unobservant) having been neglected in many calculations as to the alterations the earth’s surface has undergone. Now that advanced knowledge and improved observation have given credit to atmospheric agencies, rather than to marine action, for some of the enormous denudations recognized by geologists in past as well as in present times, we are not at all surprised to find some favouring the new views with such warmth as reaction, enthusiasm, and party-feeling usually create. With an earnest love of truth and of his subject, the writer of this pamphlet has carefully collated the statements of many geologists about “subaërial denudation,” showing how much has already been done and thought on the subject; and he adds his own experience and views, somewhat dogmatically and with some contempt for those whom he regards as differing from him.

Scientific knowledge is arrived at by repeated efforts, with imperfect observation and half-true hypotheses; and every effort is regarded as good and true until further researches and better conclusions eliminate the errors, leaving a residuum of real truth as a basis for further advance. The "subaërialists" and the "submarinists" (we know not, indeed, if there be any pure and simple followers of these schools) may, by their one-sided efforts, help to carry on observation and knowledge; and it seems as unavoidable that this should be the natural method of progress in geology as that by tacking and tacking the wind-stayed ship should make its weary way to port. We look, then, on Mr. Whitaker's pamphlet, comprising his *résumé* of what has been done and his opinions of what ought to be thought, as an effort in the right direction; and we trust that, whether the ship's prow be now too much to windward or the contrary, the voyage is successfully, though laboriously, progressing towards the happy land of geologists, where all the strata will be seen and all the fossils deciphered, where homotaxis and boulder-drift are unknown, where ice will do everything to please some, and water slave for others, where the volcano will give up the secrets of its laboratory to solve the problems of the plutonist, and the hydrothermalist, no longer in hot water, will have his doubts removed.

PROCEEDINGS OF LEARNED SOCIETIES.

ROYAL SOCIETY.

April 23, 1868.—Dr. William Allen Miller, Treasurer and Vice-President, in the Chair.

"On the Geographical and Geological Relations of the Fauna and Flora of Palestine." By the Rev. HENRY BAKER TRISTRAM, M.A., F.G.S.

A detailed examination of the fauna and flora exhibits results remarkably in accordance with the views expressed by Mr. Sclater and Dr. Günther on the geographical distribution of species. Palestine forms an extreme southern province of the Palæarctic region.

In every class, however, there are a group of peculiar forms, which cannot be explained simply by the fact of Palestine impinging closely on the Ethiopian, and more distantly on the Indian region, but which require a reference to the geological history of the country.

The results of the examination of the collections made in 1864 by the expedition assisted by the Royal Society, may be tabulated thus:—